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10/552,944	08/09/2006	Dusan Miljkovic	100700.0025US1	2489

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EXAMINER

MEHTA, HONG T

ART UNIT	PAPER NUMBER
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1794

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/552,944	Applicant(s) MILJKOVIC ET AL.	
	Examiner HONG MEHTA	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 10, 2009 and 4/16/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>April 16, 2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to applicant's remarks filed on March 10, 2009.

Applicant amended claims 1, 8, 9, 10 and 18. Pending claims 1-20 are under examination.

Claim Objections

1. Claim 1 is objected to because of the following informalities: the language of the claim recites "...including an **optionally** comminuted whole coffee cherry into the food product or comminuting and extracting the whole coffee cherry..." (lines 3-6). The term "optionally" renders the whole coffee cherry to be an option not used the food product. Examiner proceeded with the examination of the food product to include extracting the comminuted whole coffee cherry. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 1, 4, and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992 A) and further in view of Drunen et al. (US 6,572,915 B1).

1. **Regarding claims 1, 4, and 6-8**, Boniello et al. discloses a process to food product comprising “comminuted” part of or all of the all-coffee nutrient media including soluble solids from green extract (aqueous green coffee solids), ground green coffee beans, coffee by products (pulp, coffee husks and mucilage), as well as hydrolyzed spent grounds, roast and ground coffee (col. 2, lines 57-63) with water. Examiner notes the comminuted pulp, coffee husks and mucilage are part of coffee cherry fruit.

2. Boniello discloses a process of nutria media comprising of suitable coffee substances, including coffee by products which are (pulp, coffee husks and mucilage) and “comminuted” ground green coffee beans (col. 2, lines 57-63) to produce a natural flavor extract (col. 7, claim 1) then stray-dry or freeze-dry producing a combination to

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produce a "solid food product", soluble coffee (col. 8, claim 13) for human consumption (col. 4, lines 62-68).

3. Boniello does not disclose the solid food product to be a tea, juice or a carbonated beverage. However, Drunen et al. discloses a process of combination of ground coffee and extract taken dried coffee cherry, e.g. pulp, hull, bean and mucilage, the by-products of coffee processing for beverage foodstuff. Drunen et al. discloses a food product is drink beverage, which encompass tea, juice (col. 2, lines 47-48) and carbonated drinks (col. 1, line 67). Drunen et al. disclose a process of the selective extraction of antioxidant, such as from comminuted coffee cherry to be return back into food products, drink or natural supplements (col. 1, lines 53-55).

4. It would have been obvious to one of ordinary skill in the art to incorporate Drunen's process of enriching foodstuff into Boniello's process of extracted coffee cherry foodstuff as Drunen's coffee cherry extraction by chromatography removes the toxins from the extract for the purposes of administrating the selective extracts to a food, beverage or nutritional supplement by improving the quality and nutritional content ('915, col. 1, lines 41-46).

5. **Respects to claim 9**, Drunen et al. discloses a food product as a drink beverage, which encompass tea, juice (col. 2, lines 47-48) and carbonated drinks (col. 1, line 67).

6. **Regarding claim 10**, Boniello discloses isolating nutrient (col. 2, lines 57-59) from coffee cherry (col. 2, line 61) and communicated coffee cherry (col. 2, lines 62-63) with at least one solvent to produce an extract (col. 2, lines 63-68; and col. 3, lines 1-6).

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Examiner considers the coffee cherry was “whole” coffee cherry before it was comminuted or separated into different parts of coffee cherry.

7. **Regarding claim 11**, Boniello discloses a process of freeze drying the extract (claim 31, col. 10, lines 11-15). Boniello fails to disclose stage of ripeness, quick-drying and chromatography extraction of coffee cherry. However, Drunen et al. discloses a process of combination of ground coffee and extract taken dried coffee cherry, e.g. pulp, hull, bean and mucilage, the by-products of coffee processing for beverage foodstuff by chromatography.

8. **With respect to claims 12-14**, Drunen et al. teaches a chromatography with selective extraction for nutrients, caffeine, polyphenol and polysaccharides (col. 3, lines 40-56).

9. **Claim 5 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992 A) and Drunen et al. (US 6,572,915 B1) as applied to claim 1 above, and further in view of Fabian et al. (WO 9742831 A1) Duvick et al. (US 5,792,931 A) and Blanc et al. (J. Agric. Food Chem. 1998).**

10. **Regarding claims 5 and 17**, Boniello as modified by Drunen discloses the process of a composition that falls within the scope of claims 5 and 17, since the claimed end product may encompass a wide range of amount of mycotoxin, aflatoxin, fumonisins and ochratoxins including zero ppb of the toxins, as claims recites mycotoxin levels less than the specific values.

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11. It is known in the art of coffee processing emphasized by Fabian et al. those quantities of these micotoxins in the coffee are in actual fact extremely small in a few ppb – parts per billion (pg 1, lines 1-6). There are many different types of mycotoxins which are naturally present as a preservative in coffee cherry including fumonisins as emphasized in Duvick et al. (paragraph 75) including fumonisins in coffee. It is further expected that the low range amount of the same in the product of Fabian would provide the some amount preservation effect. Furthermore, Blanc et al. discloses that ochratoxin A (OTA) is a nephrotoxic and nephrocarinogenic mycotoxin produced by several fungal species from the *Aspergillus* genus and by *Penicillium verrucosum*. Blanc et al. also discloses that natural occurrence of OTA in green coffee beans have been reports by several authors in concentrations ranging between 0.2 and 360 µg/kg or 0.2 and 360 ppb (Introduction).

12. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the quick-dried comminuted whole cherry used in both processes of Boniello and Drunen, with the claim-designated ingredient to provide the instantly claimed invention because at the time of the invention was made it was well known in the art of botany mycology and the coffee industry that quantities of specific toxins is low as recited by Fabian, Duvick and Blanc.

13. **Claims 2, 3, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992) and Drunen et al. (US 6,572,915 B1) further in views Sivetz et al. (Coffee Technology 1979).**

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14. Boniello as modified by Drunen teaches the claims 1 and 10 as discussed above.

15. **With respect to claims 2, 3, 15 and 16**, Boniello et al. fail to disclose the cherry coffee ripeness by-product of the coffee production. However, Sivetz et al. discloses the ripe coffee fruit, losing chlorophyll, green to yellow to read as the coffee cherry fruit matures for coffee processing (pg. 74, paragraph 3) and is stripped in all stages of ripeness including "sub-ripe" coffee cherry (pg. 76, paragraph 2).

16. Sivetz et al. discloses green coffee cherries to be dried either in a mechanical drier for "quick drying" or on by sun-drying, or solar radiation in an ambient air terrace for coffee processing (pg. 75). Examiner considers Sivetz's preparation of whole coffee cherry to exposure to the sun-drying terrace and mechanical driers as quick-dried preparation, as defined in Applicant's specification as using heated air exposure to sun and/or ambient air on page 9, line 6 of the instant specification).

17. It would have been obvious to one of ordinary skill in the art to combine Sivetz's sub-ripe quick-dried coffee cherry into Boniello's process of making a cherry coffee food product as Sivetz et al. discloses all stages in ripeness and drying of whole coffee cherry in coffee processing and discloses the process of removing the coffee cherries crop at all stages of ripeness by strip-picking, after most of the coffee cherry fruits have matured, due to labor cost (pg. 75, lines 14-18). It would have been obvious to one of ordinary skill in the art to use sub-ripe coffee cherries as disclosed by Sivetz et al. as Sivetz clearly teaches that economics, specifically the supply, quality, and cost of labor in connection with the span of harvest are important in determining how coffee is to be harvested and dried (pg. 76, lines 16-18) in relation to sub-ripeness.

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18. **Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boniello et al. (US 4,867,992) and Drunen et al. (US6,572,915 B1) further in view of The Free Dictionary by Farlex.**

19. **Regarding claims 18-20**, Boniello et al. and Drunen et al. are set forth above.

Drunen discloses a process for a food product or beverage with chromatography extraction of coffee cherry by-product of coffee processing with nutrient of polysaccharide, polyphenol and caffeine (col. 3, lines 40-56). Drunen et al. does not disclose a method of marketing the reference composition *per se*. For instance, according to the The Free Dictionary by Farlex the concept of marketing a product generally entails the following aspects.

"The activities of a company associated with buying and selling a product or service. It includes advertising, selling and delivering products to people. People who work in marketing department of the companies try to get the attention of the target audiences by using slogans, packaging design, celebrity endorsement and general media exposure. The four 'Ps' of marketing are product, place, price and promotion."

20. It would have been obvious to market a food product with the information about the ingredients printed on at least the one of a container containing the formulation and a package containing the container and would have been well within the purview of one ordinary skill in art at the time the invention was made.

Response to Arguments

21. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. Applicant amended claims 1, 10 and 18

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to recite "including optionally comminuted whole coffee cherry" which changed the limitation of the claims and necessitated new grounds of rejections to claimed inventions.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG MEHTA whose telephone number is (571)270-7093. The examiner can normally be reached on Monday thru Thursday, from 7:30 am to 4:30 pm EST..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Htm

/JENNIFER MCNEIL/

Supervisory Patent Examiner, Art Unit 1794